EDUCATION LIBRARY

Occupational Outlook Quarterly

IN THIS ISSUE:

- Work Experience of 1959 High School Graduates
- Employment Outlook for Purchasing Agents
- The Construction Worker in the United States

Vol. 4 No. 2 May 1960

UNITED STATES DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS
in cooperation with
VETERANS ADMINISTRATION

LIBRARY
SAN FRANCISCO STATE COLLEGE
1600 HOLLOWAY AVENUE
SAN FRANCISCO 27, CALIFORNIA

Occupational Outlook Quarterly

UNITED STATES DEPARTMENT OF LABOR
James P. Mitchell, Secretary

Bureau of Labor Statistics
Ewan Clague, Commissioner

This publication is issued to provide counselors with current information on employment trends and outlook, based primarily on the continuous research and statistical programs of the Bureau of Labor Statistics. It supplements and brings up to date information in the Occupational Outlook Handbook. It is prepared with the advice and assistance of the --

Bureau of Employment Security
Robert C. Goodwin, Director

Bureau of Apprenticeship and Training
W. C. Christensen, Director

Women's Bureau
Alice K. Leopold, Director

Bureau of Labor Standards
Arthur W. Motley, Director

of the

UNITED STATES DEPARTMENT OF LABOR

and in cooperation with the

VETERANS ADMINISTRATION

Sumner G. Whittier, Administrator

The Occupational Outlook Quarterly is for sale by the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C. Subscription price per year (4 issues) - $1.00 domestic, $1.25 foreign; per copy - 30 cents. Issued in February, May, September, and December.

Use of funds for printing this publication approved by the Director of the Bureau of the Budget (December 4, 1957).

M
P
M
A

Occupational Outlook Quarterly

UNITED STATES DEPARTMENT OF LABOR • Bureau of Labor Statistics

CONTENTS

Work experience of 1959 high school graduates ... 3

Employment outlook for purchasing agents 9

College enrollments continue to rise rapidly 12

The construction worker in the United States 15

Employment of college graduates in business and industry, 1960 24

Summer jobs for students..... 29

Summer jobs in Federal agencies 31

Training opportunities for counselors, teachers, and students 35

Occupational outlook report series (List)..... 39

May 1960 Vol. 4, No. 2

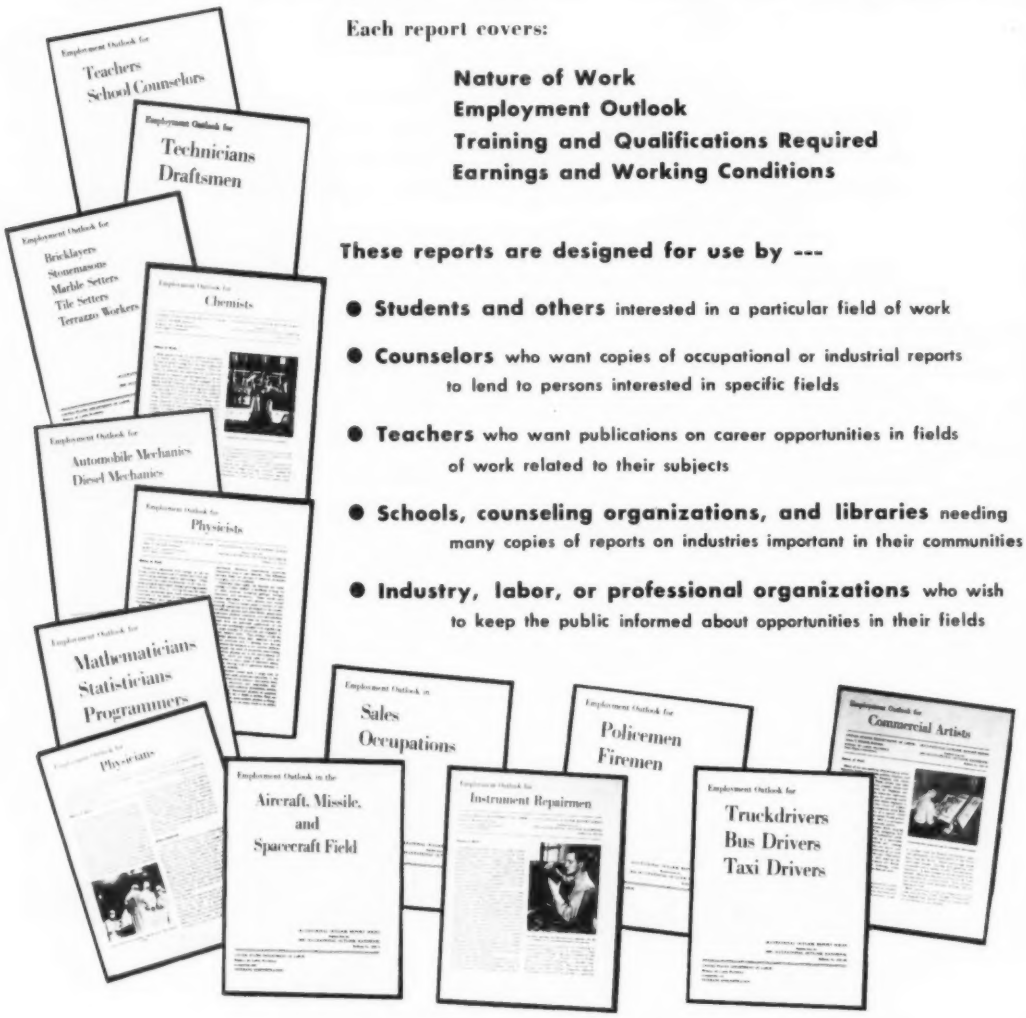
Prepared under the supervision of James J. Treires in the Division of Manpower and Employment Statistics, Harold Goldstein, Chief. Authors are staff members of the Division unless otherwise noted.

Now Available

New Occupational Outlook Report Series

COVERING 600 OCCUPATIONS AND 30 MAJOR INDUSTRIES

All of the occupational information in the 1959 Occupational Outlook Handbook is now available in this set of 89 separate reprints. (For a complete list of titles, see page 39.)



Each report covers:

Nature of Work
Employment Outlook
Training and Qualifications Required
Earnings and Working Conditions

These reports are designed for use by ---

- **Students and others** interested in a particular field of work
- **Counselors** who want copies of occupational or industrial reports to lend to persons interested in specific fields
- **Teachers** who want publications on career opportunities in fields of work related to their subjects
- **Schools, counseling organizations, and libraries** needing many copies of reports on industries important in their communities
- **Industry, labor, or professional organizations** who wish to keep the public informed about opportunities in their fields

WORK EXPERIENCE OF 1959 HIGH SCHOOL GRADUATES*

by Sophia Cooper

About 1.5 million young men and women graduated from the Nation's high schools in June 1959. Some of these young people had already gained work experience, either from part-time jobs after school or from summer employment. But the serious work effort, the concern with a job as a career, began for many of these students after they obtained a high school diploma.

How quickly the high school graduates who entered the labor force found jobs, what kinds of jobs they were able to get, and how their experience compared with that of the young people who dropped out of school before finishing high school are questions which will become increasingly important as the numbers of young people in our population mount. Answers to these questions are of direct concern to educators, vocational counselors, placement personnel, and others concerned with the development and welfare of youth. They will need these answers to impress upon young people the importance of education and skill in competing for jobs in a complex industrial economy which will require more and more highly trained workers. Furthermore, competition in the labor market will become keener--not only because more young people will be seeking jobs, but also because the number of adult women reentering the labor force will continue to increase.

College Enrollees

Information on some of these questions was provided by a survey, made in October 1959, of the employment experience of June 1959 high school graduates.[1] The survey showed that almost half (665,000) of the June graduates had enrolled in college by October, most of them on a full-time basis.[2] The proportion of the boys continuing their education was considerably greater than that of the girls--54 percent compared with 39 percent (table 1). Over 26 percent of the college enrollees were in the labor force.

Graduates Who Were Not in College

What about the 800,000 graduates who did not go on to college and who were not in military service in October? What were these 300,000 boys and 500,000 girls doing?

According to the October survey, about 7 out of every 8 high school graduates who entered the labor market were employed 4 months after graduation; the remainder were unemployed. About half of those who had jobs were in clerical and sales work.

*This article is a summary of a more detailed report, Employment of June 1959 High School Graduates, October 1959, which appears in the May 1960 issue of the Monthly Labor Review.

[1] This study, the first of its kind on a nationwide basis, was made for the Bureau of Labor Statistics in conjunction with its monthly labor force survey conducted and tabulated by the Bureau of the Census. It included the annual questions on school enrollment and supplementary questions on high school graduation status in connection with a study financed in part by the Agricultural Marketing Service, U.S. Department of Agriculture.

[2] Data presented relate to persons 16 to 24 years of age in the civilian noninstitutional population living within the continental United States (excluding Alaska) in the calendar week ending October 17, 1959. All members of the Armed Forces and inmates of institutions are excluded.

Estimates of June 1959 graduates shown here may differ slightly from those of the U.S. Office of Education because of these exclusions, the age limitation, and other minor differences in measurement. The proportion continuing on to college (46 percent) compares with the U.S. Office of Education estimate of 53 percent for 1958 based on first-time college enrollments as a percent of the estimated number of high school graduates for the school year 1957-58. The difference can be attributed to differences in measurement--for example, first-time college enrollments would include some students graduating in an earlier class whose college entrance was postponed.

TABLE 1.--College enrollment and labor force status of June 1959 high school graduates, October 1959[1]

(Thousands of persons 16 to 24 years of age)

College enrollment status, sex, and marital status of women	Civilian noninstitutional population		Civilian labor force		Not in labor force
	Number	Percent distribution	Number	Percent of population	
BOTH SEXES					
Total	1,455	100.0	810	55.7	644
Enrolled in college	665	45.7	176	26.5	488
Full time	618	42.4	136	22.0	481
Part time	47	3.3	40	(2)	7
Not enrolled in college	790	54.3	634	80.2	156
MALE					
Total	664	100.0	392	59.0	271
Enrolled in college	360	54.2	113	31.4	246
Not enrolled in college	304	45.8	279	91.7	25
FEMALE					
Total	791	100.0	418	52.8	373
Enrolled in college	305	38.6	63	20.7	242
Not enrolled in college	486	61.4	355	73.0	131
Single	418	52.8	331	79.0	88
Married or other marital status[3]	68	8.6	24	(2)	43

[1] Excludes members of the Armed Forces, inmates of institutions, and persons over age 24 in the civilian noninstitutional population.
[2] Percent not shown where base is less than 100,000.
[3] Includes divorced, widowed, and separated women.

NOTE: Because of rounding, sums of individual items may not equal totals.

Most (92 percent) of the 300,000 young men who graduated from high school and did not go on to college were in the labor force. Of the male graduates who were neither working nor looking for a job, many were enrolled in special training schools. The remainder probably included some who were about to report for military service.

A much smaller proportion (73 percent) of the girl graduates who did not enter college were in the labor force. Some of the young women had married by October 1959 and most of these young women were not working; these nonworking wives accounted for almost 10 percent of the women graduates who were not in college. Another 10 percent were single girls attending special schools, such as training schools for nurses and secretarial or other vocational schools. The remaining girls may have been helping at home or planning to be married shortly.

Recent Dropouts

The survey also obtained information on the labor force status of teenagers who had quit school before graduating from high school. Comparisons are made here of the employment experience of the dropouts and of the June 1959 graduates, but the following should be kept

in mind. No data were collected on the date of dropping out of school. However, the most common age for quitting school is 16 years of age.[3] Comparisons of the dropouts who were 18 and 19 years of age in October 1959 with the graduates of June 1959 would be unfair because of the longer experience of the dropouts in the labor force. On the other hand, dropouts of 16 and 17 years of age, who were much more likely to have joined the work force recently, have the disadvantage of being somewhat younger than most high school graduates.

The 16- and 17-year-old school dropouts numbered about 800,000, approximately the same number as the June graduates who did not go on to college (table 2). These young people represented one out of every seven in their age group in the civilian noninstitutional population. The nonwhite population showed a much higher dropout rate than the white population; there were twice as many nonwhites among the dropouts 16 and 17 years of age as there were among June high school graduates.[4]

Almost half the young women dropouts were married, compared with less than 15 percent of the graduates. A majority of the young married women in both the dropout and graduate groups were not in the labor force. Thus, with a greater proportion of married women among dropouts, the labor force participation rate of girls was much lower for the recent dropouts (39 percent) than for the

[3] The laws in many States require school attendance until age 16 and restrict work to after school hours at ages under 16. In addition, the Fair Labor Standards Act prohibits child labor (under 16) in the manufacture of goods going into interstate commerce. See Eleanor H. Bernert, America's Children, Census Monograph Series (New York, John Wiley & Sons, Inc., 1958), pp. 69, 113, and 114.

[4] "Graduates" will be used from this point forward to denote only high school graduates who were not enrolled in college.

TABLE 2.--Employment status of June 1959 high school graduates not enrolled in college and nongraduates 16 and 17 years of age not enrolled in school, by sex, color, and marital status of women, October 1959

(Number in thousands)

Graduation status, sex, age, color, and marital status of women	Civilian noninstitutional population		Civilian labor force					Not in labor force
						Unemployed		
	Number	Percentage distribution	Number	Percent of population	Employed	Number	Percent of civilian labor force	
JUNE 1959 HIGH SCHOOL GRADUATES								
Total	790	100.0	634	80.2	549	85	13.5	156
Male	304	38.5	279	91.7	239	40	14.3	25
Female	486	61.5	355	73.0	310	45	12.8	131
Single	418	52.9	331	79.2	291	40	12.1	88
Married or other marital status[1]	68	8.6	24	(2)	19	5	(2)	43
NONGRADUATES, 16 AND 17 YEARS								
Total	783	100.0	464	59.3	350	114	24.5	319
White	639	81.6	374	58.6	280	94	25.1	265
Nonwhite	144	18.4	90	62.3	70	20	(2)	54
Male	382	48.8	309	80.9	226	83	26.7	73
Female	401	51.2	155	38.6	124	31	20.3	246
Single	204	26.1	108	52.8	89	19	17.5	96
Married or other marital status[1]	197	25.2	47	23.9	34	13	(2)	150

[1] Includes divorced, widowed, and separated women.
[2] Percents not shown where base is less than 100,000.

NOTE: Because of rounding, the sums of the individual items may not equal totals.

June graduates (73 percent). Moreover, the labor force participation rates for single girls and for the young men also were lower for dropouts. Only a few of those who were not in the labor force were attending special schools. Their idleness is not only a waste of human resources, but also is a potential problem to the community.

Unemployment Among Graduates and Dropouts

Both the young graduates and the nongraduates had much higher rates of unemployment in October than the labor force as a whole. This is not surprising, because most of them probably joined the labor force only a few months earlier as jobseekers. In addition, they, like other young workers, would tend to move more readily from job to job than their elders because they are still relatively free from family responsibilities, and their job shifting is not yet affected by considerations of seniority and other vested interests. These young workers also face competitive disadvantages in relation to the more mature workers because of lack of experience.

The survey showed that although both groups covered by the study had relatively high rates of unemployment, the graduates fared much better than the dropouts. About one out of every four of the young school dropouts in the labor force in October was unemployed; by contrast, the proportion of June graduates who were looking for work was only about one out of every eight.

Types of Jobs Held by Employed Graduates and Dropouts

Another important indication of the disadvantages confronting the school dropouts is the contrast between the kinds of jobs they found and those obtained by the graduates. Fifty percent of the graduates held clerical, office, and sales jobs, compared with only 6 percent of the 16- and 17-year-old dropouts. On the other hand, lower paying service and nonfarm laborer jobs were held by 44 percent of the dropouts, as against 18 percent of the graduates.

Indirect evidence of a higher dropout rate among boys in farm communities than in the rest of the country appears in the proportion who were holding farm jobs--31 percent of 16- and 17-year-old dropouts as against 10 percent of the graduates. This is in line with data on educational attainment from other surveys which indicate that a larger proportion of farm boys end their education before finishing high school.[5]

The occupational distribution for the girls showed an even more dramatic contrast between the kinds of jobs for which graduates qualify and those secured by dropouts. Sixty-one percent of employed girl graduates, but only 5 percent of the 16- and 17-year-old dropouts, held clerical jobs. On the other hand, only 15 percent of the girl graduates in service jobs, such as waitress and private household worker, compared with 54 percent of the 16- and 17-year-old dropouts (chart 1).

Among the young men, about 50 percent of both graduates and nongraduates found jobs as operatives or laborers. Thirty-five percent of the graduates and 26 percent of the dropouts had semiskilled jobs (operatives); and 15 percent of the graduates, compared with 26 percent of the nongraduates, were employed as unskilled laborers. The proportion of graduates in clerical and sales jobs was six times as great as the proportion of 16- and 17-year-old dropouts in these jobs; the proportion was five times as great in skilled craftsmen jobs.

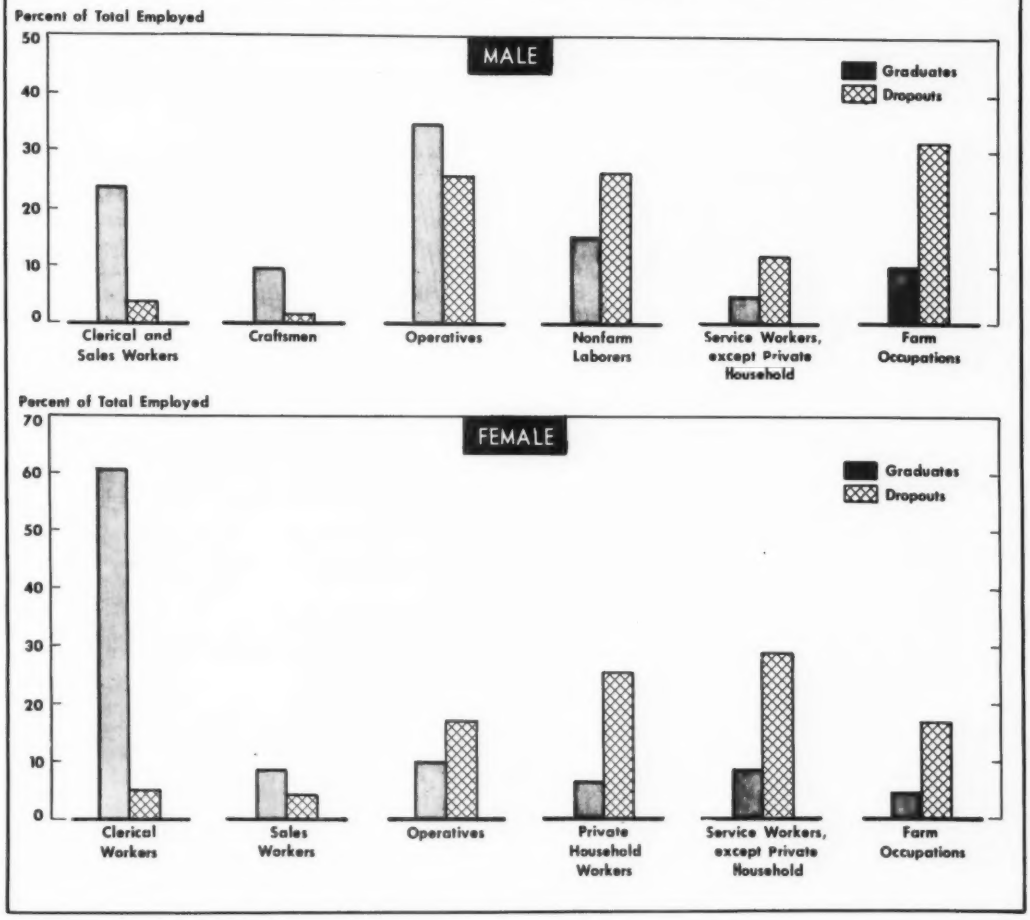
These comparisons illustrate the disadvantaged position in which young persons with little schooling find themselves when starting on their work careers. As is well known, men and women with less education usually work in jobs where the average earnings are lower.[6] Moreover, young school dropouts were working part time more frequently than graduates. Almost 39 percent of the girl dropouts employed in nonagricultural

[5] U.S. Bureau of the Census, Current Population Reports, Series P-20, No. 99, Literacy and Educational Attainment, March 1959; also, Eleanor H. Bernert, op. cit., pp. 73-74.

[6] See Educational Attainment of Workers, 1959 (in Monthly Labor Review, February 1960, pp. 113-122, Bureau of Labor Statistics, Special Labor Force Reports, No. 1 (1960)).

Chart I.

Selected Major Occupation Groups of Employed High School Graduates of June 1959 and of School Dropouts 16 and 17 Years of Age, by Sex, October 1959



industries, compared with less than 5 percent of the girl graduates in such industries, were working part time for economic reasons (slack work, material shortages, etc., or inability to find full-time work). Much involuntary part-time work occurs in construction, service, and trade industries, where a greater proportion of dropouts than of graduates find work. Hours are more steady in office jobs and in such industries as finance, insurance, and real estate and public utilities, which employ a larger proportion of graduates than of dropouts.

Effect of Job Experience on the Employment of Young Workers

The rates of unemployment of high school graduates and school dropouts improved appreciably with increased

work experience.[7] Among male high school graduates, (through age 24) the proportion unemployed dropped from 14 percent for those in the class of June 1959 to 9 percent for the 1958 class and to 5 percent for those graduating prior to 1958. The proportion of nongraduate men 20 to 24 years of age who were unemployed in October was 10 percent, in contrast to 27 percent for 16- and 17-year-olds.

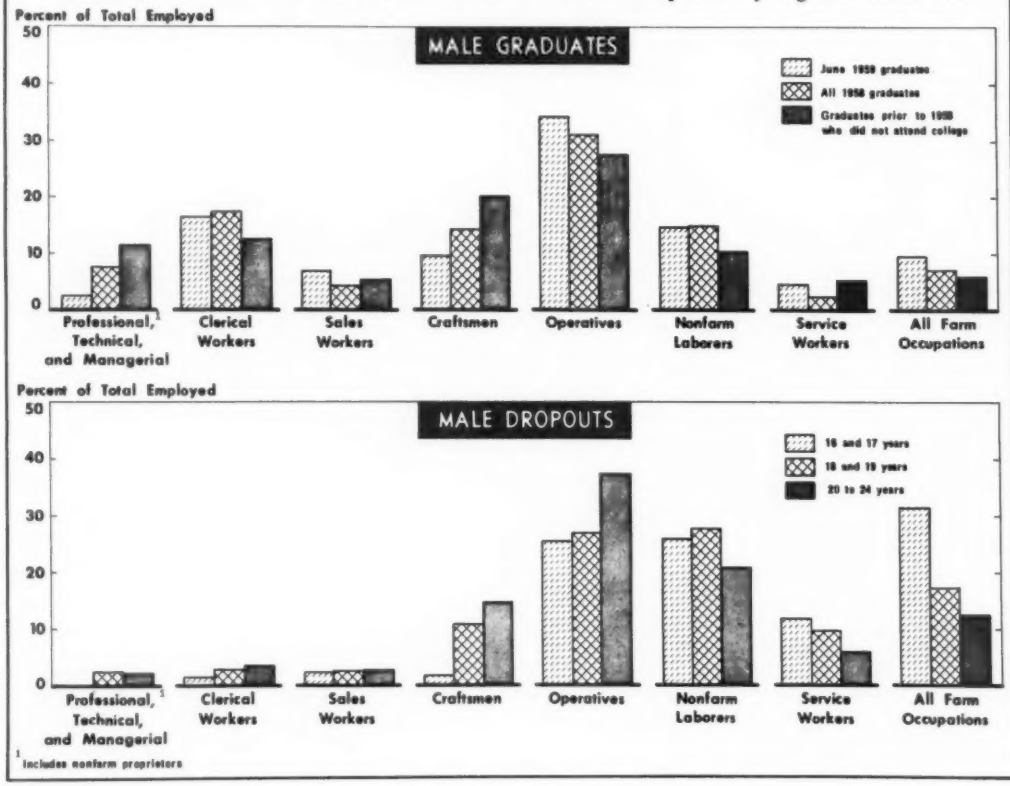
Some upward shifting of the occupational level occurred as the young people acquired work experience and on-the-job training. As shown in chart 2, the proportion of men dropouts employed as operatives and craftsmen is greater for the group 20-24 years of age than for the 16- and 17-year-olds. They appeared to move from service, unskilled, and farm jobs into these generally better paying occupations.

Among the graduates, those who had been out of high school longer were more likely than were recent graduates to have jobs in the managerial or professional-technical groups and as craftsmen.

[7]Data on length of work experience was not directly available from this survey, but were imputed from year of high school graduation and from age of school dropouts.

Chart 2.

Major Occupation Group of Employed Male High School Graduates, 16 to 24 Years of Age, by Year of Graduation, and of Male School Dropouts, by Age, October 1959



[1] Includes nonfarm proprietors

EMPLOYMENT OUTLOOK FOR PURCHASING AGENTS*

by Clare S. Frisby

All large companies spend great sums of money for the raw materials, machinery, other supplies, and services necessary to carry on their businesses. Purchasing agents and their assistants have the important job of placing the orders for these goods and services. They are responsible for obtaining the needed items at the lowest cost consistent with good quality and reliable service. They also have to see that deliveries are made at the right time so that men and machines will not be idle and their companies will be able to operate efficiently.

The head of the purchasing department of a firm or other organization is most frequently called the purchasing agent, but he may have the title of procurement or purchasing officer, director or manager of purchasing, or buyer. (The title "buyer" is also used in retail stores to denote the person who selects and purchases merchandise for resale to individual customers.[1]) In a large firm, the head of the purchasing department directs the work of a staff including assistant purchasing agents and various types of clerical workers. Purchasing assistants may be assigned to broad areas; for example, one person may be responsible for buying raw materials; another, factory machinery; and another, office supplies. Still others may be specialists in buying certain items--for example, lumber, steel, cotton, or oil. Some companies also assign purchasing personnel (expediters) to the specific job of following up orders to insure delivery as scheduled.

Trainees in a purchasing department search catalogs to compare prices of materials

The purchasing agent and his assistants receive order forms or requisitions from the various departments of the company. These requisitions list and describe needed items and include such information as quantities required and the date delivery is wanted. Since it is usually possible to make purchases from a number of different sources, the purchasing agent's main job is to select the seller who offers the best buy. In order to do this, the agent or his staff members must consider a number of factors, such as the exact specifications for the items required, price, quantity discounts, freight or other transportation cost, and delivery time. Much of the necessary information is obtained by comparing listings in catalogs and trade journals and telephoning various suppliers. Sometimes, suppliers are

*This article supplements the report, Careers in Business Management, which appeared in the December 1959 issue of this magazine. A discussion of other types of managerial work will appear in a forthcoming bulletin prepared for and to be published by the Veterans Administration, Careers in Business Management, VA Pamphlet 22-7.

[1]Buyers in stores are not included in this statement. See statement on "Buyers, Department Stores" in Occupational Outlook Handbook, 1959 edition, p. 533.

549991 O - 60 - 2

invited to bid on large orders and the purchasing agent selects the lowest bidder who meets the requirements, including the specifications set up for the goods.

Purchasing agents and assistants meet with manufacturers' salesmen to examine sample goods, watch demonstrations of equipment, and discuss items to be purchased. Sometimes, the agents visit suppliers' plants to see how products are made and to check on their quality. After placing an order, they keep in touch with the seller to insure prompt delivery. Purchasing personnel may also check on incoming shipments to see that they are of the price, quantity, and quality ordered.

It is important for purchasing agents to develop good working relations with their suppliers in order to get "rush" orders accepted, arrange for favorable terms of payment, and receive other considerations such as special packaging and prompt adjustment service. They must also work closely with personnel in various departments of their own company--for example, they frequently discuss product specifications with company engineers, or problems on handling shipments with employees in the shipping and receiving, storage, or traffic departments.

Where Employed

Well over half of the nearly 100,000 purchasing agents and closely related types of buyers employed in early 1960 were in manufacturing industries. Large numbers of purchasing workers were also employed in government agencies--Federal, State, and local--and in wholesale and retail trade. Public utilities, transportation companies, and institutions--schools, colleges, universities, and hospitals--each employed substantial numbers of purchasing agents and assistants. Even the smallest industries employ some purchasing personnel.

Most agents work in firms in which the purchasing department includes fewer than 10 employees. In some large firms, however, the purchasing staff may include a hundred or more specialized buyers. Probably fewer than 10 percent of all purchasing agents are women. Government agencies, hospitals, restaurants, and textile firms are the principal employers of women purchasing agents.

Training and Other Qualifications

Although employers differ greatly in the kind of background they prefer for purchasing personnel, it is evident that a college degree is becoming increasingly important for promotion to a high-level purchasing position. Graduates of schools of business administration who have a good background in accounting and economics and some courses in purchasing are preferred by many employers. However, because of the growing complexity of factory equipment, and the wide variety of new materials available, some employers seek young men who have technical knowledge as well as business training. Graduate training in business administration is required by a few employers. On the other hand, many firms select purchasing personnel from the young men of aptitude and promise who are already employed in various departments of the company. Experience with the company may outweigh educational qualifications.

Regardless of previous training and experience, new recruits in the purchasing field must spend considerable time learning about their company's operations and purchasing procedures. Some companies provide classroom-type instruction as well as on-the-job training. The beginner may be assigned to the storekeeper's section to learn about such operations as keeping inventory records, filling out forms to initiate purchases of additional stock, or providing proper storage facilities. He may then work with an experienced buyer to learn about types of goods purchased, prices, and sources of supply. Following the initial training period, the trainee may become a junior buyer of standard catalog items. After gaining experience in the various aspects of purchasing, and demonstrating ability to accept responsibility and exercise

good judgment, he may be promoted to assistant buyer or assistant purchasing agent, and then to full-fledged purchasing agent. In large companies, purchasing agents may eventually be promoted to head of the purchasing department and perhaps to vice president in overall charge of purchasing, warehousing, traffic, and related functions.

Employment Outlook

Opportunities are expected to be good during the early 1960's for young men to enter and advance in purchasing occupations. Many new positions will arise in rapidly expanding companies. However, a greater number of job opportunities will result from the need to replace experienced personnel who will retire, die, or transfer to other jobs.

The most rapid advancement and the best jobs in purchasing work will, in most cases, go to college graduates who show exceptional judgment, a sense of responsibility, integrity, and skill in human relations. Graduates of schools of business administration who have had courses in purchasing are expected to continue to be in strong demand by employers. Demand is expected to be above average for graduates with a good background in engineering and science to fill jobs in purchasing departments of firms manufacturing complex machinery, chemicals, and other products of a technical nature. Graduates with degrees from liberal arts colleges will also continue to obtain trainee positions in many types of firms. Although outstanding persons without a college education will continue to be promoted from clerical, sales, and other types of jobs, their opportunities for advancement to high-level purchasing jobs will tend to decrease.

Over the long run, a continued increase in the demand for purchasing agents and their assistants may be expected. Among the major factors underlying this generally favorable outlook are the continuing increase in the size of business and manufacturing firms, the emergence of new products, new sources of supply (including foreign markets), and the ever increasing complexity and specialization of business functions. Competition among manufacturers for new, improved, and less costly raw materials, goods, and services will further direct the attention of top management to the importance of the purchasing function. Furthermore, large companies are expected to expand purchasing-related activities such as inventory control--including the use of electronic data-processing equipment--and the development of scientific methods for materials management.

Earnings and Working Conditions

Beginning annual salaries for men college graduates hired as trainees in purchasing departments of large firms averaged about $5,000 in early 1960. In the Federal Government, beginners with college degrees usually started at $4,040 or $4,980, depending on the individual's college record.

A private survey indicated that median (average) annual salaries earned by experienced purchasing agents in 1959 ranged from $8,400 in firms with an annual volume of purchases under $3 million to $15,300 in firms with purchases amounting to more than $30 million. Salaries of $25,000 or more are earned by some top purchasing executives.

Employees in purchasing departments usually work the standard workweek of the company—generally from 35 to 40 hours a week. Assignment to more responsible jobs often brings a longer workweek. Purchasing agents may prepare reports, attend meetings, visit suppliers' plants, or travel outside regular working hours. Employees in purchasing departments usually receive the same holidays, vacations, and various benefits as other workers in the company.

A few companies pay tuition and other fees for purchasing department personnel who enroll in specialized educational courses and training programs. Purchasing agents and buyers who must travel in connection with their jobs are usually reimbursed for lodging, transportation, and other costs.

COLLEGE ENROLLMENTS CONTINUE TO RISE RAPIDLY

The number of full- and part-time college students reached a new alltime high of more than 3.4 million in the fall of 1959, according to the 14th annual survey made by the Office of Education, U.S. Department of Health, Education, and Welfare. This number represents an increase of about 143,000 (4.4 percent) over the preceding year. (See table.)

The current academic year was the eighth consecutive year in which college enrollments increased, continuing a rapid rise in college enrollments. The 1958-59 increase, however, was slightly smaller than the 6.2-percent increase that occurred between 1957 and 1958, when the total rose by about 190,000 students.

The number of students registering in college for the first time also reached a new alltime high. In the fall of 1959, first-time enrollments numbered 827,000 students, 6 percent over the 781,000 in 1958.

Comparing college enrollments and population, students enrolled in the fall of 1959 accounted for about 36 of every 100 persons 18 to 21 years old in 48 States and the District of Columbia (excluding Alaska and Hawaii). Twenty years ago, in the fall of 1939, this ratio was much smaller--14 students per 100 persons in that age group. This change represents an increased interest in college attendance and a stronger emphasis on the social and economic benefits of higher education, much of which can be attributed to industry's need for better trained workers. These same factors, as well as the rise in the college-age population, are likely to contribute to further increases in college enrollments in the future.

Enrollments by Type of Institution

Total enrollments in 4-year institutions, which accounted for about 7 out of 8 college students in the fall of 1959, increased at a slower rate (4.1 percent) than in junior colleges (6.5 percent). On the other hand, first-time enrollments, which are more responsive to shifts in students' college interests, grew more rapidly in 4-year institutions (6.4 percent) than in junior colleges (4.1 percent).

Compared with all institutions, percentage increases in both total and first-time enrollments were above average in liberal arts colleges (6.3 and 7.6, respectively) and technological schools (7.0 and 14.6). The theological schools had the largest percentage increases in both total (12.3) and first-time enrollments (18.6). This group, however, accounted for only 1.2 percent of total enrollments and less than 1 percent of first-time enrollments in all institutions.

Although teachers colleges showed an above-average increase in total enrollments (9.0 percent), their first-time enrollments rose by only 3.7 percent. A drop in male enrollments of almost 1 percent accounted for this below-average rise; the number of women first-time enrollees increased by slightly more than 8 percent.

The only group of institutions that showed a decrease in enrollments in the fall of 1959 was the "other professional" group, which included schools of medicine, law, business, etc. Total enrollments in this group dropped 14.4 percent below the 1958 level, and first-time enrollments declined by 4.1 percent, despite a 13.7-percent increase in women students.

Public and Private Institutions

A slightly greater increase in enrollment also occurred in public institutions compared with private schools. In the

Total and first-time college and university enrollments, by type of institution and sex, fall 1959 and fall 1958

Type of institution	Total enrollment (In thousands) Fall 1959	Total enrollment (In thousands) Fall 1958	Total enrollment Percent of change	First-time enrollment (In thousands) Fall 1959	First-time enrollment (In thousands) Fall 1958	First-time enrollment Percent of change
All institutions	3,402	3,259	4.4	827	781	5.9
Men	2,174	2,110	3.0	491	469	4.7
Women	1,229	1,148	7.0	336	312	7.6
Junior colleges	411	387	6.5	183	175	4.1
Men	261	249	4.9	112	108	3.5
Women	151	138	9.3	71	67	5.2
4-year institutions	2,991	2,872	4.1	644	606	6.4
Men	1,913	1,862	2.7	379	361	5.1
Women	1,078	1,010	6.7	265	245	8.3
Universities	1,465	1,436	2.0	271	256	5.7
Men	1,024	1,017	0.7	177	169	4.7
Women	441	419	5.2	94	87	7.7
Liberal arts colleges	966	909	6.3	243	226	7.6
Men	537	507	5.9	127	119	7.0
Women	429	401	6.8	116	107	8.3
Separately organized professional schools:						
Teachers colleges	352	323	9.0	89	86	3.7
Men	172	161	7.1	42	43	-.7
Women	180	162	10.9	47	43	8.1
Technological schools	104	97	7.0	22	19	14.6
Men	98	92	6.6	20	18	14.5
Women	7	6	14.3	2	2	16.0
Theological schools	42	37	12.3	6	5	18.6
Men	33	30	10.5	4	3	14.9
Women	9	7	19.5	3	2	24.0
Schools of art	15	15	1.6	3	3	5.5
Men	9	8	1.3	1	1	3.6
Women	7	7	2.0	1	1	7.8
Other professional schools	47	55	-14.4	10	10	-4.1
Men	40	46	-14.3	7	8	-9.6
Women	7	9	-15.2	3	2	13.7

Note: Because of rounding, sums of individual items may not equal totals.

Source: U.S. Office of Education.

public colleges and universities, which accounted for approximately 6 out of 10 students in the fall of 1959, enrollment increased by about 4.7 percent, while enrollment in private institutions increased by only 3.9 percent.

Among the 4-year schools, there was no difference between public and private institutions in the proportionate increase in total enrollments. First-time enrollments, however, increased by 7.1 percent for private 4-year colleges and universities, as against a smaller 5.8-percent increase for the public institutions. Among junior colleges, the enrollment increased by 7.6 percent in public institutions, but declined slightly (0.5 percent) in private colleges.

Enrollments of Men and Women

The fall of 1959 marked the third consecutive year in which both total and first-time enrollments rose more rapidly for women than for men. From 1958 to 1959, in the two types of enrollment, the number of women increased by 4 and 3 percentage points, respectively, more than the number of male enrollees.

Although men still accounted for approximately 64 percent of total enrollments, the increase in male enrollees accounted for only about 45 percent of the total increase in the student population.

FROM SCHOOL TO WORK

This booklet, summarized in the February 1960 issue of the Quarterly, presents highlights of a study on the early employment experience of youth in seven communities during 1952-57. It focuses on the job adjustment of high school dropouts and of high school graduates who did not go on to college or take other formal training after high school. Twelve charts illustrate the major findings.

The information on jobs and earnings and other topics relating to work experience was obtained by direct interview with over 4,000 young people themselves. The findings show the increasing need for young people to obtain more skill and training if they are to prepare themselves for the rapidly changing occupational pattern of our industrial and technological society.

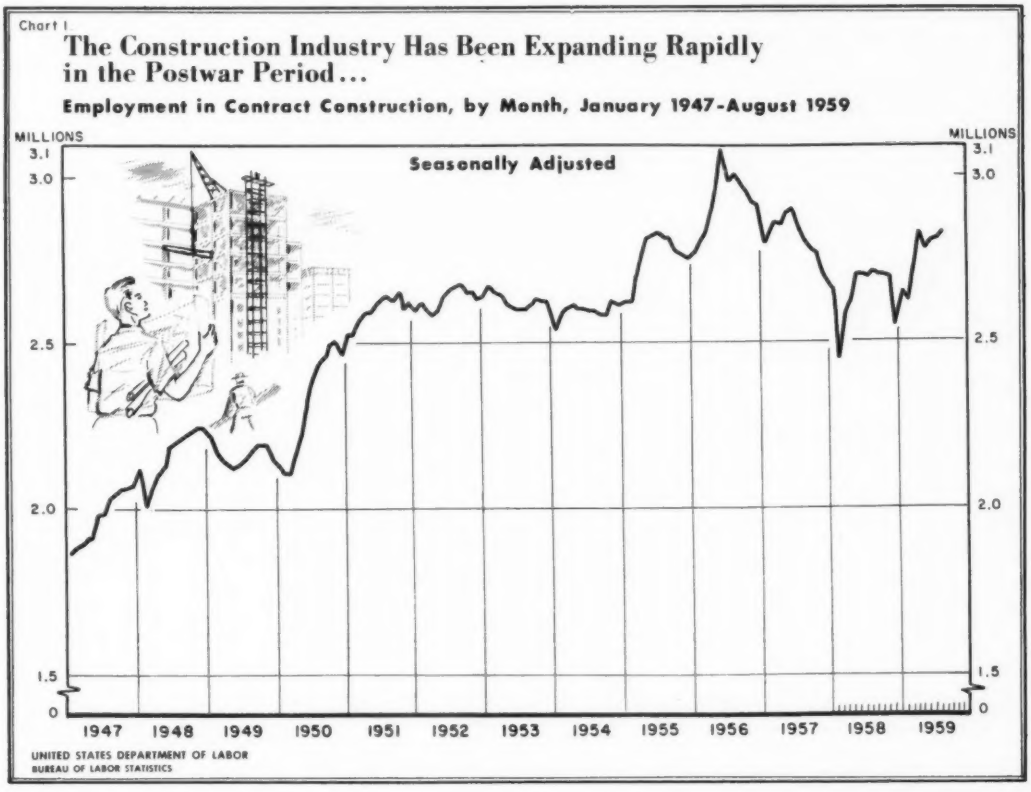
A single copy of the report is available, as long as the supply lasts, upon request to the Occupational Outlook Service, Bureau of Labor Statistics, U. S. Department of Labor, Washington 25, D. C.

THE CONSTRUCTION WORKER IN THE UNITED STATES

by Howard Rosen

Construction workers are employed in a large and expanding industry...

About 4-3/4 million workers, or 6 percent of the United States' labor force, in July 1959 worked in the construction industry. Of these, 3.3 million were wage and salaried workers in private industry, 575,000 were employees of various government agencies, and 850,000 were self-employed or were unpaid family workers. Contract construction employment, which accounts for about 60 percent of the total number of workers engaged in construction activities, increased by more than 40 percent from mid-1947 to mid-1959.



A high proportion of construction workers are skilled...

Skilled craftsmen accounted for about 50 percent of the construction industry's labor force in 1958. In contrast, only about 20 percent of manufacturing industries' labor force are skilled workers.

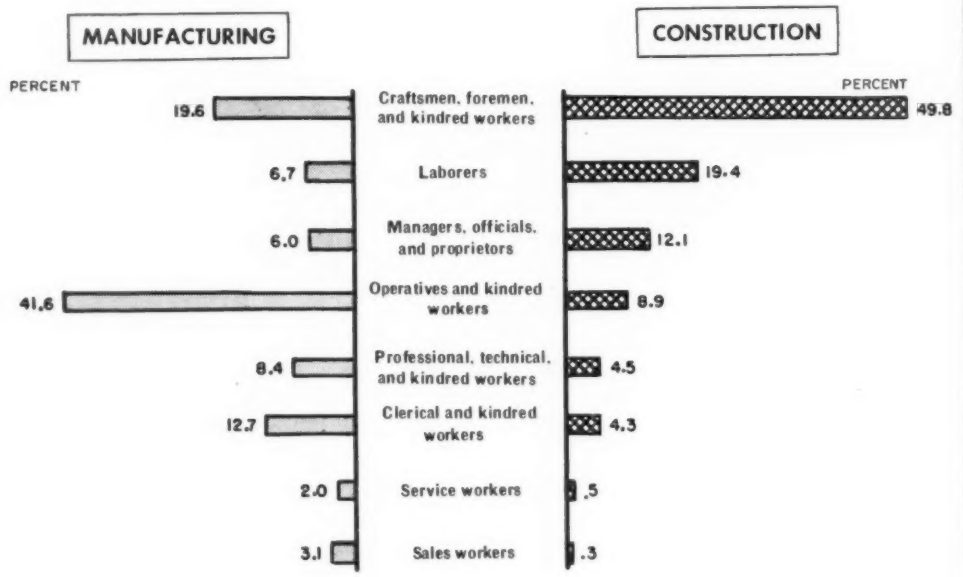
In addition to those employed in the construction industry, more than a half million building trades craftsmen were employed in manufacturing, mining, and other industries.

In all, there are almost 3 million building trades craftsmen in the United States labor force.

Chart 2.

Distribution of Employment in the Construction and Manufacturing Industries, by Major Occupation Group....

Annual Averages, 1958



UNITED STATES DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS

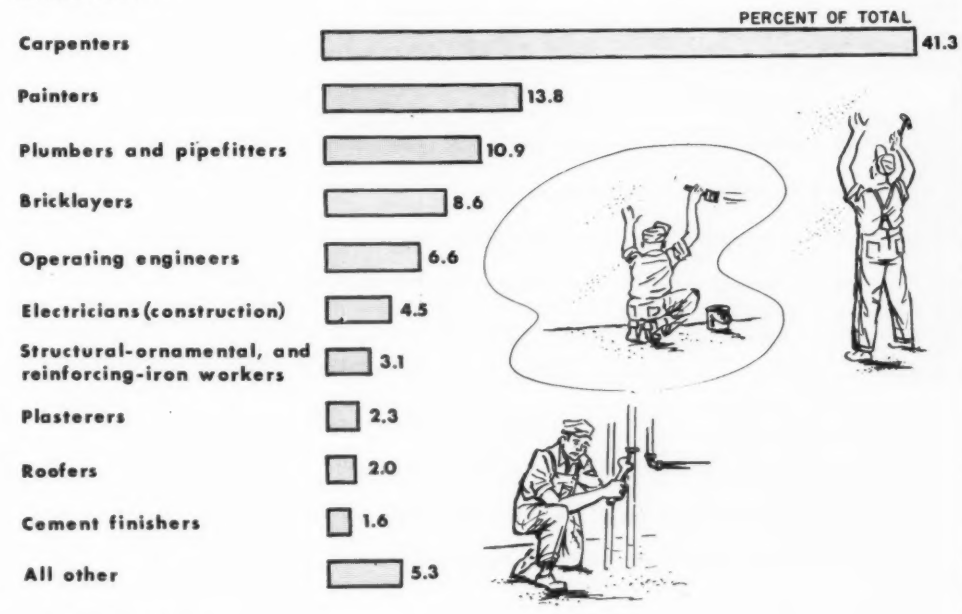
And construction employs a high proportion of all skilled craftsmen...

The nearly 3 million building trades craftsmen in the United States labor force in mid-1958 accounted for about one-third of the Nation's skilled labor force.

The skilled building trades--numbering more than two dozen--vary considerably in size. The great majority of the skilled building craftsmen were employed in six major trades--as carpenters, painters, plumbers and pipefitters, bricklayers, power equipment operators (operating engineers), and construction electricians--each of these trades having more than a hundred thousand workers. The 1,2 million carpenters alone accounted for slightly more than 40 percent of all skilled building craftsmen.

Chart 3.

Percent Distribution of Employment in Selected Skilled Building Trades Mid-1958....



UNITED STATES DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS

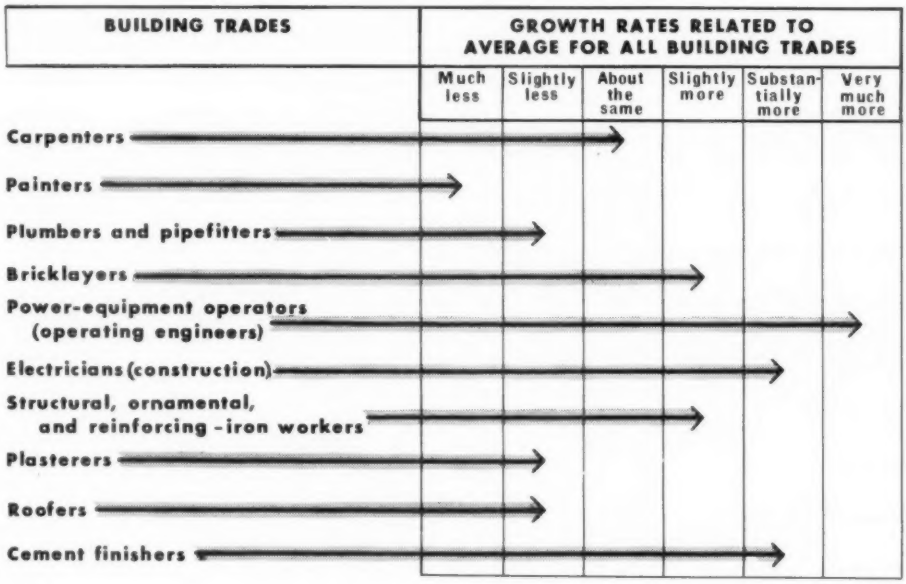
549991 O - 60 - 3

More building trades craftsmen will be needed during the 1960's...

A considerable expansion of construction activity is expected during the 1960-70 decade as a result of increasing population, growing number of households, increasing expenditures for schools and highways, the rising volume of business activity, and higher levels of personal and corporate income. This large rise in construction activity is expected to result in a substantial increase in the employment of building trades craftsmen.

Chart 4

Expected employment growth rates in selected building trades, 1960-70....



UNITED STATES DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS

Construction employment is less regular than many other kinds of work...

Construction workers lose time from work because of weather conditions and sharp seasonal fluctuations in employment. Frequent changes from one construction job to another also result in lost time.

Contract construction workers average 2 or more hours less per week than production workers in manufacturing.

Contract construction provides 22-percent fewer jobs at the seasonal low in February than at the peak in August.

Chart 5.

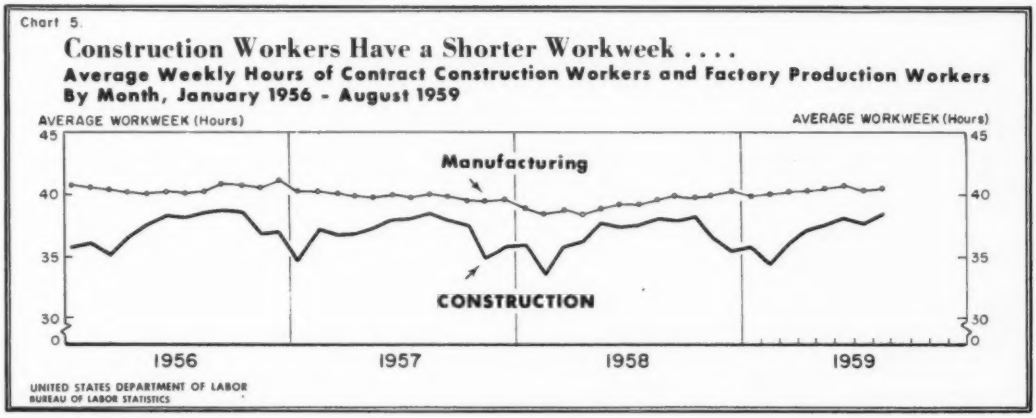
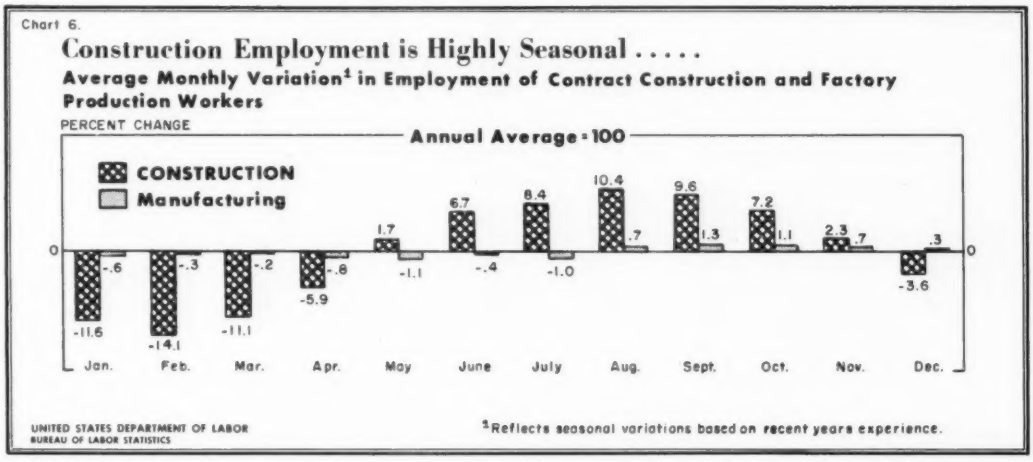


Chart 6.

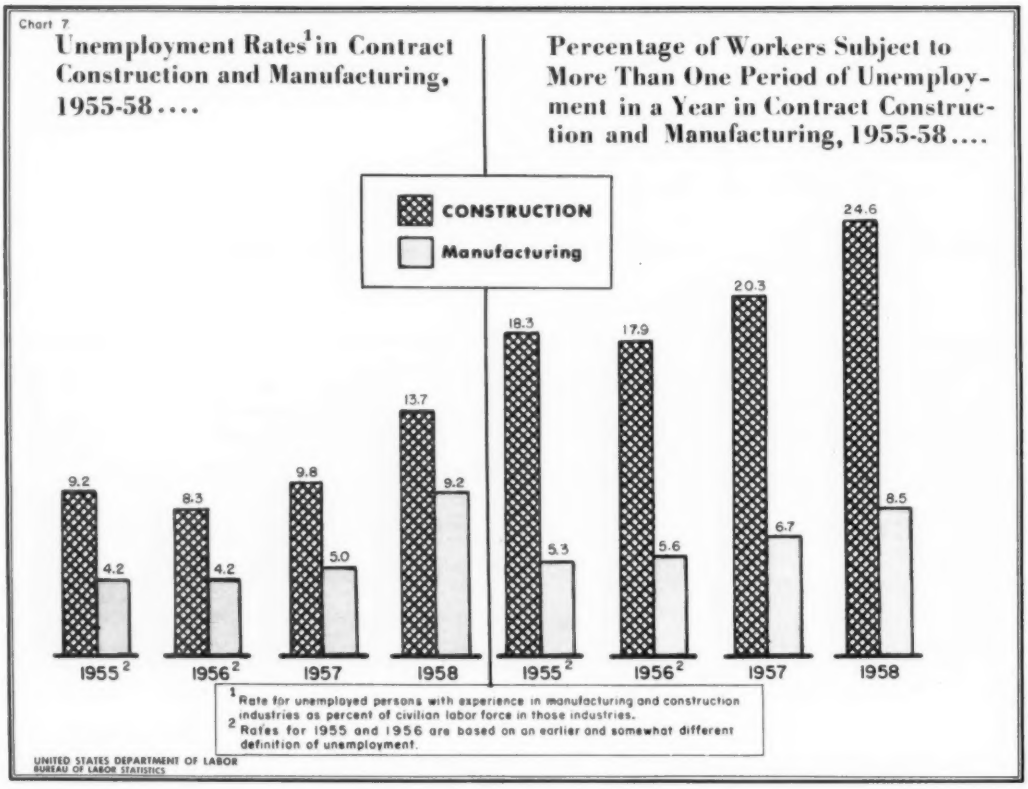


Construction workers have a higher unemployment rate than factory workers...

In 1955, 1956, and 1957, the unemployment rate in construction was about twice as high as in manufacturing. In the recession year 1958, the rate rose in both industries, but in construction it continued to be higher.

Construction workers are subject to more frequent periods of unemployment...

The proportion of workers having more than one period of unemployment is about three times as high in construction as in manufacturing.



Young workers account for a small proportion of the construction industry's work force...

Construction work in general is heavy and arduous and often hazardous. In approximately half of the States, employment of minors under 16 or 18 years in construction is prohibited; in the other States, the general minimum age established for employment during school hours is applicable. Practically all States require school attendance of minors under 16. In a few States, attendance is required to 17 or 18 years of age unless the minor is legally employed. In the years 1950-58, the annual average of 14-17 year olds employed in the construction industry was about 57,000. Practically all of these were 16 or 17 years of age; only 1 in 10 was in the 14- and 15-year age groups.

Young construction workers under 18 are not only few in number, but make up a very small proportion of the total employed in this industry. For example, in 1958, workers aged 14-18 accounted for only 1.3 percent of all construction workers. The comparable ratio for young workers in nonagricultural industries was 3.3 percent. About 12 percent of the construction industry's workers were under age 24, compared with more than 15 percent of those in all nonagricultural industries.

Average number employed in construction and all nonagricultural industries by selected age groups

Year	Total, 14 years of age and over (In thousands)		Percent of total					
			14-17 years old		18-19 years old		20-24 years old	
	Construction industry	Nonagricultural industries	Construction industry	Nonagricultural industries	Construction industry	Nonagricultural industries	Construction industry	Nonagricultural industries
1958	4,188	58,122	1.3	3.3	2.4	3.2	8.6	8.9
1957	4,116	58,789	1.4	3.3	2.3	3.3	7.7	8.9
1956	4,079	58,394	1.6	3.4	2.5	3.4	7.8	8.8
1955	4,045	56,464	1.5	3.0	2.6	3.4	7.6	8.6
1954	3,843	54,734	1.4	2.9	2.8	3.3	7.2	8.4
1953	4,013	55,651	1.3	3.1	2.5	3.4	7.1	8.7
1952	4,192	54,488	1.6	3.2	2.6	3.4	7.5	9.5
1951	3,910	53,951	1.9	3.2	2.7	3.6	8.7	10.8
1950	3,582	52,450	1.6	3.0	2.6	3.7	10.3	11.7

Source: U.S. Department of Commerce, Bureau of the Census.

Construction craftsmen have higher hourly wage rates than most other skilled workers...

Hourly and weekly earnings of construction workers have been considerably higher than the average for factory workers but annual earnings are not so high as their hourly rates of pay would indicate. (See table.)

The hourly rates of pay for skilled workers in the building trades vary by trade and by locality. Generally, the highest rates are paid in the larger communities. Union wage rates are those negotiated between trade unions and employers. A large proportion of skilled building trades workers are members of trade unions affiliated with the Building and Construction Trades Department of the American Federation of Labor and Congress of Industrial Organizations.

Forty hours is the scheduled workweek for a majority of building trades workers. Time-and-a-half or double-time rates are usually paid for work on Saturdays and Sundays or on holidays. Travel pay to and from work is commonly paid to building trades workers whenever their work is outside a specified area.

Insofar as legally required benefits are concerned (old-age survivors and disability insurance, unemployment compensation, and workmen's compensation), workers in the building trades are in the same position as workers in other industries. About 70 percent of the unionized building trades workers in 1958 were covered by labor management negotiated health and insurance plans, and about one-third were covered by pension plans. Paid vacations and holidays for building trades workers are still comparatively rare.

Year	Contract construction		All manufacturing	
	Average hourly earnings	Average weekly earnings	Average hourly earnings	Average weekly earnings
1958	$3.01	$110.47	$2.13	$83.50
1956	2.73	101.83	1.98	79.99
1954	2.54	93.98	1.81	71.86
1952	2.27	87.85	1.67	67.97
1950	1.98	73.73	1.47	59.33
1948	1.79	68.25	1.35	54.14

Apprenticeship is the best way to train for the building trades...

Apprenticeship training is generally considered by training authorities to be the best way to acquire the all-round proficiency of a skilled building trades worker. Generally, apprentices in the building trades are required to be between the ages of 17 and 25. A high school education or its equivalent, with course work in mathematics and the sciences, is desirable. Often, applicants are given tests to determine their aptitude for a particular occupation.

The formal registered apprenticeship agreement generally stipulates a training period of from 3 to 5 years of relatively continuous employment and training, in addition to a minimum of at least 144 hours a year of related classroom instruction.

Joint apprenticeship committees composed of representatives of the local employers or employer groups and the labor union local generally supervise the apprenticeship programs. The apprentices sign their apprenticeship agreements with these committees. The committee determines the need for apprentices in the locality and establishes minimum apprenticeship standards of education, experience, and training.

Editor's Note:

The Construction Worker in the United States, a chart book recently issued by the U.S. Department of Labor, graphically describes the role of the building trades worker in the American labor force. Because of the widespread interest aroused by this publication and its obvious usefulness in vocational guidance, highlights from the chart book are presented here. Single copies of the chart book may be obtained from the Occupational Outlook Service, Bureau of Labor Statistics, U.S. Department of Labor, Washington 25, D.C., as long as the supply lasts.

EMPLOYMENT OF COLLEGE GRADUATES IN BUSINESS AND INDUSTRY, 1960

by Frank S. Endicott*

The 14th annual survey of policy and practice in the employment of college and university graduates in business and industry provides information of interest to young people planning careers. In addition to the usual data on recent trends in the employment and starting salaries of these college graduates, the latest survey reports more complete information on turnover.

A total of 211 concerns in 26 States responded to the survey. They are companies which, almost without exception, actively seek to recruit college and university graduates. Representatives of all but a very few make regular visits to selected campuses. These companies may, therefore, be considered representative of large- and medium-size corporations that recruit, train, and promote college graduates.

It is important to note that findings which relate to hirings and salaries for the graduating classes of 1960 are estimates, made in November 1959, before many campuses had been visited by company recruiters. The survey forms used to obtain the data for this report were filled out and returned by the responding companies between November 1 and November 25, 1959. Although a prolonged steel strike was still unsettled, the general business outlook appeared to be favorable at the time of the survey.

Trends in Demand for Graduates

The demand for college and university graduates continues to mount. The reporting companies indicated that, combined, they will seek about 19 percent more graduates from the 1960 classes then they employed from the classes of 1959. (See table 1.) This increase in demand comes at a time when the number of bachelors' degrees granted by institutions of higher education is expected to rise by only 7 or 8 percent.

TABLE 1.--Employment of inexperienced men college graduates from the classes of 1959 and estimated employment from the classes of 1960[1]

Field	Number hired from graduating classes of	
	1959	1960 (Estimated)
All fields	14,511	17,259
Engineering	6,212	7,396
Mechanical	967	1,234
Industrial	238	356
Electrical	1,148	1,656
Chemical	343	449
Civil	85	97
Metallurgical	83	140
Other	592	523
Not specified	2,756	2,941
Other fields	8,299	9,863
Accounting	1,514	1,804
Advertising	145	155
Chemistry	421	604
Economics	76	79
Finance	88	96
General business (trainee program)	2,149	2,354
Insurance	124	97
Law	38	25
Market research	29	41
Marketing	118	167
Merchandising	109	135
Office management	41	30
Personnel	92	72
Physics	159	272
Production management	396	527
Sales	1,180	1,460
Statistics, mathematics	76	89
Time and motion study	45	42
Transportation, traffic	23	18
Other	594	734
Not specified	882	1,062

[1] Expected percentage increase in 1960 over 1959: 19 percent for total engineering and 19 percent for total nonengineering fields.

*Director of Placement at Northwestern University.

To recruit the increased number of college graduates, 46 percent of the reporting companies plan to visit more campuses than they did in 1959. About 35 percent expect to visit the same number of colleges and universities, and only 19 percent, to visit fewer.

There is continued interest in the employment of graduates in the liberal arts, but it appears that, for a variety of reasons, a relatively small proportion of liberal arts graduates actively seek business positions.

Starting Salaries

Starting salaries, it is estimated, will increase in 1960, continuing the upward trend which has been apparent for many years. (see table 2.) Furthermore, it appears on the basis of data for men graduates that the salary differential in favor of the engineering graduate over the general business graduate will increase. The companies report that they will offer at least $80 a month more, on the average, to engineers than to general business graduates in 1960. In 1955, this differential was only about $32.

TABLE 2.--Average monthly starting salaries for college men

Field	Number of companies reporting	Average starting salary[1]		$375 or less	$376 to $400	$401 to $425	$426 to $450	$451 to $475	$476 to $500	$501 to $525	$526 to $550	$551 to $575
		1960	1959									
All fields.....	196	$458	$447	--	--	--	--	--	--	--	--	--
Engineering.....	141	504	489	0	0	2	4	12	43	62	16	2
Accounting.....	100	444	433	1	11	14	41	20	11	2	0	0
Sales.....	74	434	422	5	13	18	20	7	5	5	1	0
General business trainees.....	104	424	411	8	23	28	27	13	4	1	0	0
Other fields.....	35	457	451	0	2	7	6	9	7	3	1	0

[1] Average salaries for 1960 are those which the companies plan to pay to graduates of June 1960 classes. Salaries for 1959 are actual company averages for graduates of June 1959 classes.

Previous surveys have shown that November estimates of the following years' salaries were often somewhat low, especially for engineers and accountants in years when industry requirements for these graduates were high. It is therefore possible that the 1960 starting salaries will also be a little higher than the estimates reported in this survey, provided business conditions remain favorable.

Turnover

Of special interest in the present survey are data regarding the loss of college graduates during the first few years of their employment and the reasons why men left, as reported by their companies. Previous surveys have established the fact that the greatest losses occur during the first 3 years. It appears that the typical company loses about 36 percent of its new college men by the end of the fifth year. (See table 3.)

The reasons why these men left, as reported by the companies, and the list of suggestions by the companies for reduction of turnover are shown in tables 4 and 5. On the basis of these tables, a more careful analysis of the interests and qualifications of graduates at the time of employment would appear advisable. Similarly, more attention might be given to the problem of providing

TABLE 3.--Loss of men graduates[1] during the first few years of employment

Class of--	Number of companies reporting	Percent of graduates	
		Still employed	Leaving company during first few years
1954.....	150	64	36
1956.....	171	68	32
1958.....	195	88	12

[1] Excludes those who left to enter military service.

TABLE 4.--Most common reasons why recent men college graduates left their jobs

(187 companies)

Reasons reported by companies	Number of companies reporting
Wanted to take position in another field.....	72
Wanted more pay.....	64
Geographic location; preferred to live elsewhere.....	63
Not qualified; did not meet standards.....	63
Wanted more responsibility, more opportunity.....	52
Returned to graduate school.....	32
Advancement too slow.....	25

challenging and interesting responsibilities on the job through a well-planned training program.

Shortcomings of Newly Hired Graduates

The list of shortcomings which companies reported finding among newly employed college graduates should be of special interest to those who are responsible for training programs in institutions of higher education and to students who plan careers in business. (See table 6.) More and better guidance and counseling can be helpful in assisting graduates to meet more successfully the requirements of employers. The need for more attention to oral and written expression in courses for students seeking positions in business is clearly suggested.

TABLE 5.--Commonly suggested means of reducing turnover

(175 companies)

Suggestion as stated by the company	Number of companies reporting
Provide more interesting responsibilities and challenging assignments	62
Regular appraisal and recognition of achievement	55
Well-planned training program	49
Honest portrayal of promotional opportunities before hiring	39
Personal interest, attention, and counseling	33
More careful screening	30
Pay adequate salary	26

TABLE 6.--Most common shortcomings of inexperienced men college graduates

(182 companies)

Shortcomings as indicated by the companies	Number of companies reporting
Overemphasis on management positions; expect too much too soon	68
Unrealistic idea of what is expected in business	48
Lack of ability to write clearly and concisely	46
Inability to speak effectively	45
Lack of specific goals; failure to determine what they want to do	23
Failure to recognize the value of experience and on-the-job training	19
Immaturity; poor social judgment	16
Unrealistic appraisal of their own abilities	12
Overemphasis on salary and benefits	7
Lack of motivation and drive	6

Suggestions for Colleges and Universities

The companies responding to the questionnaire were in general agreement on several points regarding colleges and universities. Almost unanimously they rated extracurricular activities important in contributing to the all-round development of the student, and felt that participation in such activities during college years should be encouraged.

Practically all responding companies agreed that college teachers should learn as much as possible about the business world that their graduates will enter.

The companies expected colleges to continue to be selective in their admissions, but most of them question the policy of admitting only those with a specified ranking in their class. There was general agreement that college standards should be neither too demanding for the average student nor so low that very few would fail.

MATHEMATICS AND YOUR CAREER -- 1960 REVISION

A revised version of this 12-page illustrated booklet is now available. The earlier issue (1958) of this booklet was widely used by counselors and teachers in pointing out to students the importance of training in mathematics for successful careers in many fields of work.

The new booklet, directed primarily to high school students (as was the earlier one), lists about 80 occupations requiring a knowledge of mathematics, and indicates the amount of math needed for them. It also lists sources of additional information.

Complimentary copies of the 1960 booklet are being sent to persons on the Occupational Outlook Mailing List (136). Other persons who want it may obtain a single copy upon request, as long as the supply lasts, by writing to the Occupational Outlook Service, Bureau of Labor Statistics, U. S. Department of Labor, Washington 25, D.C., or to the BLS regional offices at one of the following addresses: 1371 Peachtree Street, NE, Atlanta 9, Georgia; 18 Oliver Street, Boston 10, Massachusetts; 105 West Adams Street, Chicago 3, Illinois; 341 Ninth Avenue, New York 1, New York; 630 Sansome Street, San Francisco 11, California.

SUMMER JOBS FOR STUDENTS*

Each spring, millions of students begin to think about summer jobs, to wonder where to begin looking for work for the summer vacation, and to speculate about job opportunities. The chances of any one student for getting a summer job will depend on the opportunities in the area in which he lives, as well as on his age and ability. The following information is meant to give the general picture and to suggest the kinds of work youths may wish to investigate.

Clerical and Service Jobs

Since stenographers and typists are in demand in some areas, girls with speed and accuracy in typing and shorthand will frequently be able to get summer work. Girls with other office skills, such as bookkeeping, and clerk-typists who are good at figures may also be employed on a summer replacement basis. Cashiers have good job opportunities, particularly those who can operate standard cash registers. Neighborhood stores and those at resorts employ girls for sales work. Occasionally, hospitals hire nurses' aides and other helpers on a temporary summer basis.

Jobs as soda fountain clerks, as well as other ice cream sales jobs, are available. Boys may find jobs as service station attendants. Bus boys and girls, waiters, and waitresses will be needed for work at summer resorts. Many wholesale and retail firms, particularly in vacation areas, hire extra messengers and delivery boys during the summer months.

Employment in National Parks

The National Park Service, Department of the Interior, Washington 25, D.C., publishes a mimeographed statement on summer employment in the National Park Service, listing the addresses where jobs are available. Many jobs in these parks, however, are with concessionaires, and in that case, applicants should apply directly to the concessionaires. There are jobs for guides, cooks, waitresses, nurses, chauffeurs, bellboys, chambermaids, and salespersons in the lodgings, restaurants, and stores maintained by these concessionaires, whose addresses are furnished by the Department of the Interior.

Jobs with Government

There are many other summer job opportunities in Federal and State government agencies. Usually, college students majoring in subjects related to the work are preferred for jobs in Federal agencies.[1] High school or college students generally are not hired for jobs in foreign countries.

Camp and Recreation Jobs

Mature boys and girls with camping experience are hired as camp counselors in the spring. Counselors must have camping skills, such as arts and crafts, nature lore, athletics, music, dancing, and dramatics. A Red Cross lifesaving swimming certificate is often required. Young people over 20 years old are preferred, but teenagers 16 years old and over with experience as campers are sometimes hired as waiters or waitresses and counselors.

Practically all cities operate playgrounds where recreation leaders are employed on a full- or part-time basis. This employment affords an opportunity for interesting experience in supervising creative activities for children. Many

*This article is an excerpt from Summer Jobs for Students, Leaflet No. 7 (revised 1960), Bureau of Employment Security and Bureau of Labor Standards. The leaflet is for sale by the Superintendent of Documents, U.S. Government Printing Office, Washington 25, D.C., price 5 cents.

[1] See article, Summer Jobs in Federal Agencies, page 31.

cities require some college education and experience with children in church, camp, 4-H clubs, scouts, and similar programs. Background training or experience in the fields of recreation, physical education, education, sociology, and arts and crafts is preferred. Both boys and girls, 18 years and over, are hired for these jobs. For further information, a student can write to the director of recreation in his community or to the National Recreation Association, 8 West Eighth Street, New York 11, New York.

Farm Jobs

In many parts of the country, boys and girls find temporary jobs picking fruits and vegetables in the summer. Corn-growing States have a large demand for boys and girls to detassel corn. In most places, these youths are transported to and from the fields through joint arrangements of employers and local offices of the State employment service. Some State employment services maintain programs whereby selected youths are placed with farm families for summertime work. Large employers in some States seek boys of high school and college age for harvest work and maintain supervised camps for them on the site. Information concerning farm jobs in specified areas can be obtained through the farm placement representative in your local office of the State employment service. Canneries also hire summer workers.

Other Summer Jobs

Resorts and amusement parks, as well as refreshment stands, hire ticket takers, ticket sellers, cashiers, counter workers, and ride attendants. Working hours are usually long and irregular. Ice cream companies hire inside workers, packers, and helpers. Such workers are also employed by soft drink manufacturing plants, where loading and operating bottling machinery may also be involved. Theatres, swimming pools, and golf courses all hire young people for summer work.

Parks and cemeteries may hire extra maintenance workers, such as lawn mowers, and boys to help clean up the grounds and to assist gardeners. Greenhouses hire extra workers during the summer months. Tree surgeons in large metropolitan suburbs also employ a few assistants.

Most of these jobs are filled on short notice close to the end of the school term or the beginning of the summer.

Volunteer Work

Students who do not get a paid job may want to do some kind of volunteer work. Social and health agencies, such as hospitals, are often shorthanded. Settlement houses, recreation agencies, and other nonprofit organizations may need help with their heavy summer programs. If such volunteer work is done with the same sense of responsibility expected on a paid job, it is excellent experience and will be useful later for a full-time job.

Other Considerations

Young people planning to work are urged to check with their local work-permit offices to determine if the work they plan to do is legally permitted and to get the necessary preliminary papers. In most States, work permits are required, at least for children under 16; in many other States, for minors under 18. Employment certificates also serve as proof of age under Federal laws.

Work experience of any type is valuable for young people if it is within their physical capacity. They should investigate all job possibilities suggested by family, friends, and neighbors. It is also helpful to register with the nearest State employment service office.

SUMMER JOBS IN FEDERAL AGENCIES

Many Federal agencies employ high school and college students during the summer vacation months under several different training programs, some of which may lead to permanent civil service careers. A few agencies also employ faculty members who have special scientific and professional qualifications. Summer job opportunities are primarily in professional and technical fields, but typing and stenographic jobs are also available in some agencies for both high school and college students.

Student Assistants.

All Federal agencies have authority to hire student assistants for temporary, part-time, or intermittent jobs without requiring a civil service examination. Most student assistants are appointed to jobs at grade GS-4 and GS-5; some are appointed at grades up to GS-7. Student assistants are assigned to aid scientific, professional, and technical personnel. They cannot be appointed to routine clerical positions. Persons appointed must be high school or college students pursuing courses related to the field in which they are to be employed. A number of agencies, however, only employ students who are at least college juniors.

Some agencies also strongly recommend that their student assistants take the Federal Service Entrance Examination (Civil Service Announcement No. 206), which would qualify them to be hired by the agency on a full-time, career basis following college graduation. However, this examination is not a requirement for employment as a student assistant.

Appointments are limited to 130 working days during any one year. Total compensation received during this period is also limited. It ranges from $1,398 in grade GS-4 or below to $1,660 in grade GS-7. The appointment of a student assistant must be terminated when the salary limit is reached, even if this occurs within less than 130 days of employment.

Student Trainees

College students who are recruited as student trainees are first required to pass a civil service examination. As trainees, they receive on-the-job training in Federal offices and research laboratories under the guidance of experienced professional personnel. They have a chance to observe and participate in the work of an agency and to decide whether they would like to join it on a permanent basis. Trainees who do good work may be given leaves of absences without pay to return to school in the fall. They may then return the following summer to work in the same agency without taking another examination.

Summer jobs open to student trainees are in the following fields: accounting, agricultural economics, architecture, biological and plant sciences (agronomy, biology, botany, genetics, horticulture, plant pathology, plant physiology), cartography, chemistry, economics, engineering, entomology, forestry, geology, home economics, mathematics, metallurgy, oceanography, physics, plant pest control, range conservation, soil conservation, soil science, and general and agricultural statistics.

A nationwide written examination for student trainees (Civil Service Announcement No. 205) is now open. Applicants will be examined at monthly intervals up to September 1960. Information and application forms may be obtained from most post offices, U.S. Civil Service Commission regional offices, or the U.S. Civil Service Commission, Washington 25, D.C.

The Civil Service Commission's regional offices and boards of examiners throughout the country issue their own

announcements describing employment opportunities in their areas. An applicant who passes the nationwide examination or one of the regional examinations may apply for vacancies at other offices throughout the country by filing his notice of rating and an application form.

In making appointments, preference is given to veterans and to applicants who have worked for the agency previously. Appointees must pay their own transportation to and from the place of employment. The minimum age for appointment is usually 16 but, in some instances, it is 18.

Salaries are based on the number of academic years of study completed. A student may apply before completing the required course of study but may not start work until the necessary study is completed. Student trainee salaries (before income tax and other payroll deductions) are as follows:

College education completed	Grade	Annual Salary	Monthly rate
Less than 1 year	GS-2	$3,255	$271
Freshman year	GS-3	$3,495	$291
Sophomore year	GS-3	$3,495	$291
Junior year	GS-4	$3,755	$313

After completing all the work required for the bachelor's degree, trainees may be promoted to full-time professional and technical positions at grade GS-5. Some graduates with outstanding college records and those with at least 12 months of student trainee experience may be given appointments at the GS-7 level. The basic entrance salary is $4,040 a year for a GS-5 position and $4,980 for a GS-7 position. However, in certain shortage occupations, entrance salaries are higher. For example, for engineers, electronic scientists, metallurgists, astronomers, and mathematicians, the beginning salary is $4,490 for a GS-5 position and $5,430 for a GS-7 position.

Cooperative Education Programs

A number of Federal agencies employ college students as trainees under cooperative education programs conducted by certain colleges and universities. These programs combine classroom theory and knowledge with practical training and experience on the job, providing alternating periods of work and study. The work part of these programs may occur at any time during the year; thus, some of the jobs are available during the summer months. Students are generally employed in pairs; one student works while his alternate is in school, and at the end of the college quarter, they change places. The work phase is regarded as an essential element in the educational process and is included in the cooperating college's requirement for a degree.

Practically all of these programs require 5 years to complete, with 36 months allocated to the academic phase and 24 months to the work phase. Some schools require the student to complete his entire freshman year in residence, and others require residence during the entire senior year.

For the period he is actually employed, a student participating in a cooperative program is paid at the rate of from $3,255 to $4,040 a year.

Public Health Service Training Programs

The U. S. Public Health Service offers unusual training opportunities to medical, dental, engineering, and science students through its Commissioned Officer Student Training and Extern Program (COSTEP). Students who have completed their second or third year of medical, dental, or engineering school, as well as graduate students in the sciences, are eligible to participate in this vacation-time program. The program is designed to lead to a career in the Commissioned Corps or elsewhere in the Public Health Service. Assignments are at hospitals, research laboratories, and other public health facilities throughout the United States.

The largest number of students under COSTEP are employed during the summer months. The application deadline

for the summer program is February 1; however, some student training is conducted throughout the year. Students attending schools operated on the quarter system, with vacations at other times in the year, may apply for assignments during these periods by submitting their applications at least 120 days before the date they will be available. For further information and special application forms, write to the Surgeon General, U.S. Public Health Service, Washington 25, D.C.

Opportunities for Faculty Members

A few Federal agencies employ faculty members of accredited colleges or universities who have special qualifications for positions of a scientific, professional, or analytical nature. Pay depends on the duties to be performed and the qualifications required. Usually, employment does not exceed 130 working days a year. In a few instances, however, faculty members have been retained on the rolls as intermittent consultants.

Stenographers and Typists

To be hired for a summer job as a stenographer or typist, an applicant must pass a civil service examination, which includes an aptitude test for office work and a typing test at 40 words a minute. Stenographers must also pass a dictation test at 80 words a minute.

Starting salaries are about $62 or $67 a week for typists and $62, $67, or $72 for stenographers. To qualify for the higher pay rates, the employee must usually have some work experience, some commercial education, or higher test scores. For work in Washington, D.C., an applicant can qualify for the higher salaries without meeting these additional requirements. Stenographers generally command a higher salary than typists and may be placed in a job sooner.

Young people interested in summer typing or stenographic jobs can apply at any time to the U. S. Civil Service Commission, Washington 25, D.C., or to the Civil Service Commission's regional office where work is desired.

Participating Agencies

The following Federal agencies are among those participating in student employment programs. These agencies do not necessarily have job openings every summer. Even when summer jobs are available in an agency, the number may be small. Inquiries about possible job openings may be addressed to the personnel offices of these agencies, Washington 25, D.C., except where otherwise noted.

A. Student Assistant Program

Department of Agriculture
Forest Service

Department of the Air Force

Department of Commerce
National Bureau of Standards
Bureau of Public Roads
Bureau of the Census

Department of Health, Education, and Welfare
Public Health Service

Department of the Interior
National Park Service

Department of Labor

Department of State

General Services Administration
Public Buildings Service

National Capital Planning Commission

Smithsonian Institution
Bureau of American Ethnology, River Basin Surveys, 1517 O Street, Lincoln 8, Nebraska

Veterans Administration
Department of Insurance
Department of Medicine and Surgery

B. Student Trainee Program

Department of Agriculture
Agriculture Research Service (Beltsville, Md.)

Department of Agriculture
- Commodity Stabilization Service
- Forest Service
  - Forest Products Laboratory (Madison, Wis.)
- Soil Conservation Service

Department of the Air Force

Department of the Army
- Ordnance Corps
- Chemical Corps
- Quartermaster Corps
- Corps of Engineers
- Signal Corps

Department of Commerce
- National Bureau of Standards
- Weather Bureau
- Bureau of the Census

Department of Health, Education, and Welfare
- Public Health Service

Department of the Interior
- Bureau of Land Management
- Geological Survey
- Bureau of Reclamation (Denver, Colo.)

Department of the Navy
- Bureau of Naval Weapons
- Bureau of Ships
- Bureau of Yards and Docks

Treasury Department
- U.S. Coast Guard Headquarters

Federal Aviation Agency

Federal Communications Commission

Housing and Home Finance Agency
- Office of the Administrator
- Urban Renewal Administration
- Community Facilities Administration

National Aeronautics and Space Administration

Veterans Administration

C. Cooperative Education Program

Department of the Air Force

Department of the Army

Department of the Navy

Treasury Department
- U.S. Coast Guard Headquarters

National Aeronautics and Space Administration

D. Employment of Faculty Members

Department of Commerce
- Bureau of Public Roads

Department of the Navy
- Bureau of Ships
- Bureau of Weapons
- Bureau of Yards and Docks

Treasury Department
- U.S. Coast Guard Headquarters

For additional information about summer jobs and the specific locations of some of the agency openings, see:

Summer Employment in Federal Agencies Pamphlet No. 45, December 1959.

This pamphlet, prepared by the U.S. Civil Service Commission, is on sale by the Superintendent of Documents, Washington 25, D.C., at 15 cents per copy.

TRAINING OPPORTUNITIES FOR COUNSELORS, TEACHERS, AND STUDENTS

Special training programs of about 6 to 8 weeks will be available this summer for counselors, teachers, and students in counseling and guidance; science, mathematics, and engineering; and languages.

Counseling and Guidance

About 3,000 high school counselors or potential counselors will have an opportunity to attend counseling and guidance training institutes at 84 colleges and universities this summer. These institutes are provided for under title V-B of the National Defense Education Act. All States except Alaska, New Hampshire, and Vermont will have at least one institute each, and some will have five or more. Under cooperative agreements, New Hampshire and Vermont will be served by an institute in Maine, and Alaska will be served by an Oregon Institute. In addition, institutes will be held in the District of Columbia and in Puerto Rico.

Selection of the colleges and universities to conduct the institutes was made with the help of 18 experts in counselor education who served as consultants to the U.S. Office of Education. Institute proposals were submitted by 165 colleges and universities.

In the summer of 1959, a total of 50 National Defense Counseling and Guidance Training Institutes were attended by 2,210 counselors. Public school personnel attending the institutes received stipends of $75 a week plus $15 a week for each dependent. Private school enrollees attended free of charge but received no stipend. The institutes conducted this summer will give preference to persons who have not previously attended.

For more information, write to the Office of Education, U.S. Department of Health, Education, and Welfare, Washington 25, D. C., or to the directors of the institutes listed below.

The list of the 1960 institutes, together with the dates of their operation and the names of the directors, follows:

Alabama--Alabama Polytechnic Institute, Auburn; June 13-July 22; Director, Wilbur A. Tincher.

Alaska--See Oregon.

Arizona--Arizona State University, Tempe; June 13-August 6; Director, Dr. Sandford S. Davis.

Arkansas--University of Arkansas, Fayetteville; June 6-July 12; Director, Dr. Glenn A. Cole.

California--Los Angeles State College, Los Angeles; June 20-July 29; Director, Dr. Donald G. Mortensen.

Sacramento State College, Sacramento; July 25-September 2; Director, Dr. James A. Saum.

San Diego State College, San Diego; June 27-August 5; Director, Dr. David D. Malcolm.

San Jose State College, San Jose; June 22-August 5; Director, Dr. John A. Barr.

University of Southern California, Los Angeles; June 20-July 30; Director, Dr. Earl F. Carnes.

Colorado--Colorado State College, Greeley; June 25-August 19; Director, Dr. Eugene D. Koplitz.

Connecticut--University of Connecticut, Storrs; July 5-August 12; Director, Dr. Edward A. Wicas.

Delaware--The University of Delaware, Newark; June 20-August 12; Director, Dr. W. A. Pemberton.

District of Columbia--George Washington University, Washington; July 5-August 12; Director, Dr. Mitchell Dreese.

Florida--The Florida State University, Tallahassee; June 12-July 25; Director, Dr. Harold F. Cottingham.

University of Florida, Gainesville; June 20-August 12; Director, Dr. Robert O. Stripling.

Georgia--Atlanta University, Atlanta; June 6-July 15; Director, Dr. Paul I. Clifford.

University of Georgia, Athens; June 13-July 21; Director, Dr. William B. King.

Hawaii--University of Hawaii, Honolulu; August 1-September 9; Director, Dr. Francis E. Clark.

Idaho--University of Idaho; Moscow; June 13-August 5; Director, Dr. Eugene Giles.

Illinois--Loyola University, Chicago; June 27-August 6; Director, Dr. Robert C. Nicolay.

University of Illinois, Urbana; June 20-August 13; Director, Dr. Fred C. Proff.

Indiana--Ball State Teachers College, Muncie; June 20-August 12; Director, Dr. Joseph W. Hollis.

Purdue University, Lafayette; June 6-July 29; Director, Dr. James Linden.

University of Notre Dame, Notre Dame; June 20-August 2; Director, Dr. Anthony C. Riccio.

Iowa--Iowa State Teachers College, Cedar Falls; June 13-August 15; Director, Dr. Wray D. Silvey.

State University of Iowa, Iowa City; June 15-August 10; Director, Dr. Kenneth B. Hoyt.

Kansas--Kansas State College of Pittsburg, Pittsburg; June 13-July 22; Director, Dr. E. G. Kennedy.

Kansas State University, Manhattan; June 13-August 6; Director, Dr. H. Leigh Baker.

Kentucky--University of Kentucky, Lexington; June 13-August 5; Director, Dr. George W. Rogers.

Louisiana--Louisiana State University, Baton Rouge; June 9-August 3; Director, Dr. Russell E. Helmick.

Maine, New Hampshire, Vermont--University of Maine, Orono; July 5-August 19; Director, Dr. Stanley L. Freeman, Jr.

Maryland--University of Maryland, College Park; June 27-August 5; Director, Dr. Richard H. Byrne.

Massachusetts--Boston University, Boston; August 1-September 2; Director, Dr. Dugald S. Arbuckle.

Clark University, Worcester; June 27-August 10; Director, Dr. Vernon Jones.

Michigan--Michigan State University, East Lansing; August 1-September 2; Director, Dr. Walter F. Johnson.

Wayne State University, Detroit; June 27-August 19; Director, Dr. William Evraiff.

Western Michigan University, Kalamazoo; June 20-August 12; Director, Dr. Arthur J. Manske.

Minnesota--University of Minnesota, Minneapolis; Director, Dr. Willis E. Dugan. Basic group--Duluth Campus, June 13-July 15; Advanced group Minneapolis Campus, June 13-July 22.

Mississippi--University of Mississippi, University; June 9-July 20; Director, Dr. Harley F. Garrett.

Missouri-University of Missouri, Columbia; June 6-August 5; Director, Dr. John L. Ferguson.

Montana--Montana State University, Missoula; June 13-August 19; Director, Dr. Robert E. Gorman.

Nebraska--University of Omaha, Omaha; June 13-July 16; Director, Dr. B. Gale Oleson.

Nevada--University of Nevada, Reno; June 27-August 5; Director, Dr. Truman M. Cheney.

New Hampshire--See Maine.

New Jersey--Rutgers-The State University, New Brunswick; July 6-August 12; Director, Dr. C. Winfield Scott.

New Mexico--University of New Mexico, Albuquerque; June 13-August 5; Director, Dr. George L. Keppers.

New York--Colgate University, Hamilton; June 27-August 6; Director, Dr. Thomas H. Lynch.

Long Island University, Brooklyn; June 27-August 12; Director, Dr. William Kirman.

New York University, New York City; July 6-August 12; Director, Dr. Claude W. Grant.

St. Bernadine of Siena College, Loudonville; June 23-August 7; Director, Dr. Gladys C. Murphy.

Syracuse University, Syracuse; June 27-August 19; Director, Dr. Wilbert J. Dipboye.

University of Buffalo, Buffalo; June 27-August 5; Director, Dr. Robert H. Rossberg.

University of Rochester, Rochester; June 27-August 5; Director, Dr. Harold L. Munson.

North Carolina--North Carolina College at Durham; Durham; June 6-July 15; Director, Dr. Ray Thompson.

North Carolina State College, Raleigh; June 13-July 22; Director, Dr. Roy N. Anderson.

North Dakota--North Dakota Agricultural College, Fargo; July 25-September 2; Director, Dr. Garry R. Walz.

Ohio--Kent State University, Kent; July 25-August 27; Director, Dr. Dwight L. Arnold.

Ohio State University, Columbus; June 20-August 12; Director, Dr. Herman J. Peters.

Ohio University, Athens; July 17-August 20; Director, Dr. George E. Hill.

University of Cincinnati, Cincinnati; June 27-August 5; Director, Dr. Norman M. Paris.

University of Toledo, Toledo; June 13-July 21; Director, Dr. Robert L. Gibson.

Oklahoma--Oklahoma State University, Stillwater; June 6-August 5; Director, Dr. Harry K. Brobst.

Oregon, Alaska--Oregon State System of Higher Education, Portland, Oreg.; June 21-August 12; Director, Dr. Daniel W. Fullmer.

Pennsylvania--Lehigh University, Bethlehem; June 16-July 23; Director to be appointed.

Temple University, Philadelphia; June 27-August 19; Director, Dr. Roy B. Hackman.

University of Pittsburgh, Pittsburgh; June 27-August 5; Director, Dr. George L. Fahey.

Puerto Rico--University of Puerto Rico, Rio Piedras; June 13-July 22; Director, Dr. Ana C. Caceres.

Rhode Island--Rhode Island University, Kingston; July 5-August 12; Director, Dr. S. Marvin Rife.

South Carolina--University of South Carolina, Columbia; June 13-July 29; Director, Dr. William W. Savage.

South Dakota--State University of South Dakota, Vermillion; June 15-August 16; Director, Dr. Joseph T. Fisher.

Tennessee--Tennessee A and I State University, Nashville; June 6-July 9; Director, Dr. Montraville I. Claiborne.

University of Tennessee, Knoxville; June 13-August 19; Director, Dr. L. M. DeRidder.

Texas--East Texas State College, Commerce; June 6-July 15; Director, Dr. William E. Truax, Jr.

North Texas State College, Denton; June 6-July 14; Director, Dr. George C. Beamer.

Texas Christian University, Fort Worth; June 6-July 15; Director, Dr. Otto R. Nielsen.

Texas Technological College, Lubbock; June 1-July 12; Director, Dr. A. Beatrix Cobb.

University of Texas, Austin; June 13-August 12; Director, Dr. Royal B. Embree, Jr.

Utah--Utah State University, Logan; June 13-July 15; Director, Dr. E. Wayne Wright.

Vermont--See Maine.

Virginia--College of William and Mary, Williamsburg; June 13-July 22; Director, Dr. Deore J. Cannon.

University of Virginia, Charlottesville; July 5-August 13; Director, Dr. Ralph W. Cherry.

Washington--Central Washington College of Education, Ellensburg; June 20-August 12; Director, Dr. Maurice L. Pettit.

Washington State University, Pullman; June 15-August 7; Director, Dr. Zeno B. Katterle.

West Virginia--Marshall College, Huntington; June 8-July 19; Director, Dr. Clarke F. Hess.

West Virginia University, Morgantown; July 18-August 26; Director, Dr. Walter H. Jarecke.

Wisconsin--Marquette University, Milwaukee; June 20-July 29; Director, Dr. John P. Treacy.

Wyoming--University of Wyoming, Laramie; June 13-August 19; Director, Dr. Lyle L. Miller.

Science, Mathematics, and Engineering

Three hundred and eighty-one summer institutes, supported by the National Science Foundation, will be held in 1960 for college and high school teachers of science, mathematics, and engineering. Funds are available to provide financial assistance for about 18,000 teachers. The Foundation grant to each institute covers the cost of tuition, fees, stipends, and allowances. The institute selects the teacher-participants and determines the amounts of the stipends and allowances; the maximum stipend is $75 per week. For more information, write to the National Science Foundation, Washington 25, D.C.

Summer programs for engineering and science teachers will also be sponsored jointly by the American Society for Engineering Education and the Atomic Energy Commission to provide special training in nuclear energy. The 1960 summer program will include: (1) Basic or beginning institutes at North Carolina State College, Raleigh, and at Purdue University, Lafayette, Ind.; (2) Advanced institutes on (a) Intermediate Reactor Physics at North Carolina State College, Raleigh; (b) Radiation Effects on Engineering Materials, Cornell University, Ithaca, N.Y.; (c) Advanced Radiation Effects--Theory and Experiment, University of Michigan, Ann Arbor; and (d) Special Nuclear Studies, Argonne National Laboratory, Lemont, Ill. A basic or beginning institute for technical institute teachers will also be held at Pennsylvania State University, University Park. Additional information and application blanks may be obtained from Professor W. Leighton Collins, Secretary, American Society for Engineering Education, University of Illinois, Urbana, Ill.

Language Centers

Twenty-six colleges and universities will receive Federal funds under the National Defense Education Act in support of 31 language centers during the 1960-61 academic year. Of the 31 centers, 12 will receive support for the first time and 19 for the second year. Nine additional new centers will be announced in the near future. For further information, write to the Office of Education, U.S. Department of Health, Education, and Welfare, Washington 25, D.C.

The purpose of the centers program, which is authorized under title VI of the Act, providing for language development, is to strengthen higher education facilities for the study of languages not now commonly taught at the college level, to prepare students to teach these languages at the college level, and to provide specialized training for persons planning to enter other areas of public service where knowledge of the languages is needed.

Three of the twelve new centers to receive support in 1960-61 will offer only undergraduate courses: The University of Arizona (Chinese, Japanese, Hindi), State University of Iowa (Chinese), and Portland State College, Oregon (Arabic).

Check list on the
OCCUPATIONAL OUTLOOK REPORT SERIES

Bull. No.	Employment Outlook for—	Price, cents
__ 1255–1	Accountants	5
__ 1255–2	Agricultural Occupations	20
__ 1255–3	Aircraft, Missile, and Spacecraft Field	10
__ 1255–4	Anthropologists, Economists, Historians, Political Scientists, and Sociologists	15
__ 1255–5	Architects	5
__ 1255–6	Atomic Energy Field	10
__ 1255–7	Automobile Manufacturing Occupations	15
__ 1255–8	Automobile Mechanics and Diesel Mechanics	10
__ 1255–9	Baking Industry	10
__ 1255–10	Banking Occupations	10
__ 1255–11	Beauty Operators and Barbers	10
__ 1255–12	Biological Scientists	10
__ 1255–13	Bricklayers, Stonemasons, Marble Setters, Tile Setters, Terrazzo Workers	10
__ 1255–14	Business Machine Servicemen	5
__ 1255–15	Carpenters	5
__ 1255–16	Chemists	5
__ 1255–17	Chiropractors	5
__ 1255–18	Commercial Artists	5
__ 1255–19	Construction Electricians and Elevator Constructors	10
__ 1255–20	Construction Laborers and Hod Carriers	5
__ 1255–21	Dentists	5
__ 1255–22	Department Store Occupations	15
__ 1255–23	Dispensing Opticians and Optical Laboratory Mechanics	5
__ 1255–24	Electric Light and Power Occupations	15
__ 1255–25	Electronic Servicemen and Technicians	5
__ 1255–26	Electronics Manufacturing Occupations	10
__ 1255–27	Electroplaters	5
__ 1255–28	Engineering	15
__ 1255–29	FBI Agents	5
__ 1255–30	Foresters	5
__ 1255–31	Forge Shop Occupations; Blacksmiths	10
__ 1255–32	Foundry Occupations	10
__ 1255–33	Geologists, Geophysicists, Meteorologists	10
__ 1255–34	Government Occupations	15
__ 1255–35	Home Economists and Dietitians	10
__ 1255–36	Hotel Occupations	10
__ 1255–37	Industrial Chemical Industry	10
__ 1255–38	Instrument Repairmen	5
__ 1255–39	Insurance Occupations—Clerks, Agents, and Actuaries	15
__ 1255–40	Interior Designers and Decorators	5
__ 1255–41	Iron and Steel Industry	10
__ 1255–42	Lawyers	5
__ 1255–43	Librarians	5
__ 1255–44	Machinists, Tool and Die Makers, Instrument Makers, and Other Machining Occupations	15
__ 1255–45	Maintenance Electricians	5
__ 1255–46	Mathematicians, Statisticians, and Programmers	10
__ 1255–47	Medical X-Ray Technicians, Medical Technologists, Dental Hygienists, and Medical Record Librarians	15
__ 1255–48	Men's Tailored Clothing Industry	10
__ 1255–49	Millwrights and Industrial Machinery Repairmen	5
__ 1255–50	Newspaper Reporters	5
__ 1255–51	Office Machine Operators; Bookkeepers	10
__ 1255–52	Optometrists	5
__ 1255–53	Osteopathic Physicians	5
__ 1255–54	Painters, Paperhangers, Glaziers, and Asbestos and Insulating Workers	10
__ 1255–55	Paper and Allied Products Industry	10
__ 1255–56	Personnel Workers	5
__ 1255–57	Petroleum Production and Refining	15
__ 1255–58	Pharmacists	5
__ 1255–59	Physical Therapists and Occupational Therapists	10
__ 1255–60	Physicians	5
__ 1255–61	Physicists	5
__ 1255–62	Pilots, Stewardesses, and Other Air Transport Occupations	15
__ 1255–63	Plasterers, Lathers, Cement Finishers	10
__ 1255–64	Plastic Products Manufacturing	10
__ 1255–65	Plumbers and Pipefitters	5
__ 1255–66	Policemen and Firemen	10
__ 1255–67	Printing Occupations	20
__ 1255–68	Protestant Clergymen	5
__ 1255–69	Psychologists	5
__ 1255–70	Rabbis	5
__ 1255–71	Radio and Television Broadcasting	10
__ 1255–72	Railroad Occupations	20
__ 1255–73	Refrigeration and Air-Conditioning Mechanics	5
__ 1255–74	Registered Professional Nurses and Practical Nurses	10
__ 1255–75	Restaurant Occupations—Waiters and Waitresses, Cooks and Chefs, Managers	10
__ 1255–76	Roman Catholic Priests	5
__ 1255–77	Sales Occupations	15
__ 1255–78	Secretaries, Stenographers, and Typists	5
__ 1255–79	Sheet Metal Workers and Roofers	5
__ 1255–80	Social Workers	5
__ 1255–81	Stationary Engineers	5
__ 1255–82	Structural-, Ornamental-, and Reinforcing-Iron Workers; Operating Engineers	10
__ 1255–83	Teachers and School Counselors	15
__ 1255–84	Technicians and Draftsmen	15
__ 1255–85	Telephone Occupations—Linemen, Installers, Repairmen, and Operators	15
__ 1255–86	Truckdrivers, Bus Drivers, Taxi Drivers	15
__ 1255–87	Veterinarians	5
__ 1255–88	Watch Repairmen, Jewelers, and Jewelry Repairmen	10
__ 1255–89	Welders, Oxygen Cutters, Boilermakers	10

USE ORDER FORM ON NEXT PAGE TO PURCHASE THESE BULLETINS

HOW TO ORDER PUBLICATIONS

Please write the number of copies you wish to purchase on the line in front of each bulletin number on the check list on the back of this page.

Fill out the order form below.

Send your order, together with remittance, to one of the addresses listed on the order form. Please make check or money order payable to the Superintendent of Documents; do not send stamps.

Remember that a 25-percent discount is given on orders of 100 or more copies of any single bulletin.

ORDER FORM

Send order to the Superintendent of Documents, Washington 25, D.C., or to any of the following regional offices of the Bureau of Labor Statistics, U.S. Department of Labor:

1371 Peachtree St. NE
Atlanta 9, Ga.

18 Oliver St.
Boston 10, Mass.

105 W. Adams St.
Chicago 3, Ill.

341 Ninth Ave.
New York 1, N.Y.

630 Sansome St.
San Francisco 11, Calif.

Enclosed find $_____ for:

_____ Occupational Outlook Reports indicated on the check list.

_____ copies of the Occupational Outlook Handbook, Bull. 1255, at $4.25 each.

_____ subscriptions to the Occupational Outlook Quarterly at $1 per year, domestic; $1.25 foreign.

Name _____ Street _____

City _____ Zone ____ State _____

U. S. GOVERNMENT PRINTING OFFICE: 1960 O - 549991

CUMULATIVE INDEX*

	Volume and Page No.
Astronomers	3/4/22
Business management careers	3/4/10
College enrollments	4/2/12
College graduates:	
Employment in industry	4/2/24
Outlook for	3/4/3
Construction workers	4/2/15
Counselors and teachers, training opportunities	4/2/35
Craftsmen, outlook for	3/4/19
Dental laboratory technicians	4/1/18
Earnings:	
Office and plant jobs	3/4/32
Chemists and chemical engineers	4/1/33
High school graduates, employment of	4/2/3
Machining workers	3/4/29
Manpower in the 1960's	4/1/9
Ocean study, opportunities in	4/1/28
Part-time jobs for women	4/1/10
Purchasing agents, outlook for	4/2/9
School leavers - early work experience	4/1/22
Summer jobs:	
For students	4/2/29
In Federal agencies	4/2/31
Unemployment insurance	4/1/3

Note: 3/4/22 means Volume 3, No. 4, page 22

*This index will cover issues which supplement the 1959 edition of the Occupational Outlook Handbook. For index on previous issue of the Quarterly, see Vol. 3, No. 3, September 1959.

UNITED STATES
GOVERNMENT PRINTING OFFICE
DIVISION OF PUBLIC DOCUMENTS
WASHINGTON 25, D. C.

OFFICIAL BUSINESS

PENALTY FOR PRIVATE USE TO AVOID
PAYMENT OF POSTAGE, $300
(GPO)